



Form PTO-1449

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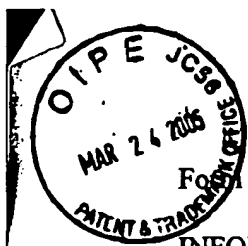
(Use several sheets if necessary)

Sheet 1 of 4

Application Number 10/516,923
Filing Date December 7, 2004
Inventor HESSE et al.
Art Unit
Examiner
Attorney Docket No. 53621

U.S. PATENT DOCUMENTS				
Initial	Document Number	Date	Name	Class/Subclass
<i>[initials]</i>	3,925,352	12/1975	Bojarska-Dahlig et al.	
	3,967,057	06/1976	Tsukamoto et al.	
	4,268,695	05/1981	Lange et al.	
	4,301,077	11/1981	Pesa et al.	
	4,652,685	03/1987	Cawse et al.	
	4,797,382	01/1989	De Thomas et al.	
	4,885,411	12/1989	De Thomas et al.	
	4,940,805	07/1990	Fischer et al.	
	4,965,378	10/1990	Budge et al.	
	5,030,773	07/1991	Johnson et al.	
	5,072,009	12/1991	Budge et al.	
	5,122,495	06/1992	Taylor et al.	
	5,149,836	09/1992	De Thomas et al.	
	5,196,602	03/1993	Budge et al.	
	5,395,990	03/1995	Scarlett	
	5,406,004	04/1995	Eastland et al.	
	5,536,849	07/1996	Bergfeld et al.	
	6,008,375	12/1999	Bergfeld et al.	
	6,008,384	12/1999	Bockrath et al.	
<i>[initials]</i>	6,075,153	06/2000	Bergfeld et al.	
<i>[initials]</i>	6,297,389	10/2001	Castiglioni et al.	
EXAMINER <i>[signature]</i>	DATE CONSIDERED 9/13/06			
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Sheet 2 of 4

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FOREIGN PATENT DOCUMENTS				
Init.	Document Number	Date	Country	English equivalent /abstract/explanation
	0 322 140 ✓	06/1989	Europe	
	0 404 408 ✓	12/1990	Europe	
	WO 99/38856 ✓	08/1999	PCT	
	0 638 565 ✓	02/1995	Europe	US 5,536,849; spec. p. 2, l. 34-36
	1 168 220 ✓	10/1969	Great Britain	
	2 404 493 ✓	08/1974	Germany	US 3,967,057; spec. p. 3, l. 10-13
	WO 91/16132 ✓	01/1991	PCT	
	WO 95/22539 ✓	08/1995	PCT	
	WO 99/35136 ✓	07/1999	PCT	
	WO 97/24346 ✓	07/1997	PCT	US 6,008,375 + US 6,075,153; spec. p. 3; l. 31-32
	1 277 233 ✓	09/1968	Germany	GB 1 059 598; spec. p. 4, l. 1-3
	1 059 598 ✓	02/1967	Great Britain	
	1 230 276 ✓	04/1971	Great Britain	
	2 231 986 ✓	01/1974	Germany	GB 1 344 557; spec. p. 4, l. 8-10
	1 344 557 ✓	01/1974	Great Britain	
	2 501 499 ✓	07/1976	Germany	GB 1 512 499; spec. p. 4, l. 12-15
	1 512 751 ✓	06/1978	Great Britain	
	1-121228 ✓	05/1989	Japan	Patent Abstracts of Japan.; spec. p. 4, l. 17-18
	49-24906 ✓	03/1974	Japan	Dashunin et al.; spec. p. 4, l. 20-22
	49-87610 ✓	08/1974	Japan	Dashunin et al.; spec. p. 4, l. 20-22
	WO 82/03854 ✓	11/1982	PCT	
	0 318 129 ✓	05/1989	Europe	
	6-034567 ✓	02/1994	Japan	Patent Abstracts of Japan; spec. p. 5, l. 19-20
	WO 99/35113 ✓	07/1999	PCT	
	WO 99/35114 ✓	07/1999	PCT	
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FOREIGN PATENT DOCUMENTS				
Init	Document Number	Date	Country	English equivalent or abstract
<input checked="" type="checkbox"/>	WO 99/52845 ✓	10/1999	PCT	
<input checked="" type="checkbox"/>	0 382 050 ✓	08/1990	Europe	
<input checked="" type="checkbox"/>	2 845 905 ✓	04/1980	Germany	US 4,268,695; spec. p. 6, l. 7-9
<input checked="" type="checkbox"/>	0 373 947 ✓	06/1990	Europe	
<input checked="" type="checkbox"/>	1 113 831 ✓	06/1994	China	DW 97-416221; spec. p. 6, l. 17-19
<input checked="" type="checkbox"/>	1 116 615 ✓	08/1994	China	DW 97-449307; spec. p. 6, l. 17-19
<input checked="" type="checkbox"/>	1 138 018 ✓	06/1995	China	DW 98-052938; spec. p. 6, l. 17-19
<input checked="" type="checkbox"/>	1 047 328 ✓	07/1990	China	DW 91-230631; spec. p. 6, l. 17-19
<input checked="" type="checkbox"/>	1 137 944 ✓	06/1995	China	DW 98-052915; spec. p. 6, l. 17-19
<input checked="" type="checkbox"/>	1 182 639 ✓	11/1996	China	DW 2002-406026; spec. p. 6, l. 21-22
<input checked="" type="checkbox"/>	1 182 732 ✓	11/1996	China	DW 2002-548770; spec. p. 6, l. 24-26
<input checked="" type="checkbox"/>	2 455 617 ✓	05/1976	Germany	US 3,925,352; spec. p. 6, l. 31-34
<input checked="" type="checkbox"/>	3 726 510 ✓	02/1989	Germany	US 4,940,805; spec. p. 7, l. 6-7
<input checked="" type="checkbox"/>	2-025434	01/1990	Japan	Patent Abstracts of Japan; spec. p. 7, l. 9-11
<input checked="" type="checkbox"/>	0 373 946 ✓	06/1990	Europe	
<input checked="" type="checkbox"/>	2-233627 ✓	09/1990	Japan	Patent Abstracts of Japan; spec. p. 7, l. 16-20
<input checked="" type="checkbox"/>	2-233630 ✓	09/1990	Japan	Patent Abstracts of Japan; spec. p. 7, l. 16-20
<input checked="" type="checkbox"/>	2-233631 ✓	09/1990	Japan	Patent Abstracts of Japan; spec. p. 7, l. 16-20
<input checked="" type="checkbox"/>	2-233632 ✓	09/1990	Japan	Patent Abstracts of Japan; spec. p. 7, l. 22
<input checked="" type="checkbox"/>	0 431 923 ✓	06/1991	Europe	
<input checked="" type="checkbox"/>	WO 97/43234 ✓	11/1997	PCT	
<input checked="" type="checkbox"/>	WO 99/35139 ✓	07/1999	PCT	
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Sheet 4 of 4

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Examiner
Attorney Docket No. 53621

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
Init.						
<i>QJ</i>	MESSORI et al., "Reaction Pathway in Vapour Phase Hydrogenation of Maleic Anhydride and Its Esters to γ -Butyrolactone" (June 1994), <i>Journal of Catalysis</i> , Vol. 150, pp. 177-185.					
<i>QJ</i>	DASHUNIN et al., "Substituted Lactones and Their Transformations, VI. Preparation of 1- and 2-Alkyl-1,4-Butanediols from α - and γ -Substituted Butyrolactones" (June 1965), <i>Zhurnal Organicheskoi Khimii</i> , Vol 1, No. 6, pp. 996-1000.					
EXAMINER	<i>QJ</i>	DATE CONSIDERED	<i>9/13/06</i>			
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